V. REMARKS

Claims 1-5 are rejected under 35 U.S.C. 102(e) as anticipated by Japanese Patent 06-080108. The rejection is respectfully traversed.

Japan 108 teaches a packaging device for wrapping a magnetic powder. A magnetic material is fed into recesses of a rotary drum that rotates clockwise. The recesses form hollow openings into the packing material by a vacuum generated in a vacuum chamber.

The invention of Japan 108 has the following shortcomings:

(i) Although the pressing roller 9 pushes magnetic powder into recessions 5, magnetic powder merely enters the recessions 5 from hopper 2. Accordingly, the amounts of magnetic powder in the recessions 5 are uneven; therefore, the amounts of wrapped-up magnetic powder are uneven.

(ii) Magnets 6 are disposed in the recessions 5. Accordingly, magnetic powder adheres to the magnets 6 and the amounts of magnetic powder adhered to the magnets 6 gradually increase; therefore, the amounts of wrapped-up magnetic powder decrease and are uneven.

(iii) The drum 3 has a suction chamber 12 and a non-suction chamber 14. The suction chamber 12 sucks air to draw a film 10 into recessions 5. Thus, preparations for receiving magnetic powder are made. However, the magnetic powder is composed of iron powder, water, vermicolite, activated carbon, salt, and so on. When air is sucked, magnetic powder is exposed to an amount of air several hundred times the usual amount of air. Accordingly, the magnetic powder is oxidized and generates heat in the recessions 5. Thus, wrapped-up magnetic powder has no commercial value.

By contrast, the invention of the present application has the following advantages:

(i) Because surplus magnetic powder is scraped away from the recesses 14 by the doctor blades 19, measuring is accurate. Accordingly, the amounts of wrapped-up magnetic powder are even.

(ii) Because magnets 16 are disposed inside the measuring drum 1 and not in the recesses 14, magnetic powder does not adhere to the magnets 16 and the whole amounts of magnetic powder in the recesses 14 are wrapped up. Thus, the wrapped-up amounts of magnetic powder are even.

(iii) Because the invention of the present application does not have a suction chamber, magnetic powder does not generate heat in the wrapping process.

Claim 1, as amended, is directed to a continuous wrapping machine for wrapping a magnetic powder in wrapping film that includes a measuring drum, a sealing drum, and a sealing device. Claim 1 recites that the measuring drum has an outer cylinder with a plurality of recesses formed into an outer periphery of the outer cylinder with each recess sized to receive measured amounts of the magnetic powder, at least one doctor blade extending along an axis of the measuring drum and in contact with the outer periphery of the measuring drum and including magnets arranged inside the measuring drum for magnetically retaining the measured-out amounts of the magnetic powder in the respective recesses with a magnetic-screening plate disposed between the magnets and the outer cylinder for cutting off the magnetic retaining force of the magnetic retaining means to transfer the measured-out amounts of the magnetic powder to the sealing drum. Claim 1 recites that the sealing drum includes a magnetic means for magnetically retaining the measured-out amounts of the magnetic powder on a first continuous wrapping film fed onto its periphery and the sealing device seals the first continuous wrapping film and a second continuous wrapping film, which is fed onto the measured-out amounts of the magnetic powder on the sealing drum, together around each of the measured-out amounts of the magnetic powder.

It is respectfully submitted that the rejection is improper because the applied art fails to teach each element of claim 1 as amended. Specifically, it is respectfully submitted that the applied art fails to teach a measuring drum having an outer cylinder with a plurality of recesses formed into an outer periphery of the outer cylinder with each recess sized to receive measured amounts of the magnetic powder, at least one doctor blade extending along an axis of the measuring drum and in contact with the outer periphery of the measuring drum and including a magnets arranged inside the measuring drum for magnetically retaining the measured-out amounts of the magnetic powder in the respective recesses with a magnetic-screening plate disposed between the magnets and the outer cylinder for cutting off the magnetic retaining force of the magnets to transfer the measured-out amounts of the magnetic powder to the sealing drum. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claims 2-4 depend from claim 1 and include all of the features of claim 1. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reason claim 1 is allowable as well as for the features they recite.

Claim 5 is canceled and therefore the rejection as applied thereto is now moot.

Withdrawal of the rejection is respectfully requested.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as anticipated by Saito (US Patent Number 6,591,584). The rejection is respectfully traversed.

Saito is directed to an apparatus for producing a package of a fluidized substance and includes a metering-applicator for the fluidized substance, a first conveyor, a second conveyor and a sealer. The metering-applicator includes a metering through-hole having an outer opening and an inner opening forming a volumetric metering space therebetween. The volumetric metering space has a prescribed volume and shape. The first conveyor conveys a first sheet into contact with the outer opening. The second conveyor conveys a second sheet for covering the fluidized substance supplied to the first sheet. The sealer seals the two sheets together in a prescribed shape to make a package of a fluidized substance that includes the first sheet, the second sheet and the fluidized substance held therebetween. The fluidized substance is supplied from the inner opening of the metering through-hole into the volumetric metering hole and then onto the first sheet while the first sheet is conveyed to supply a measured, prescribed amount of the fluidized substance onto the first sheet.

Saito does not have recesses. Its measuring mechanism, which comprises a supplying unit 3, a supply pipe 31, a leveling unit 3, etc., is complex and is not capable of measuring out powder accurately. By contrast, the claimed invention combines recesses 14 and doctor blades 19 as now amended. The combination is simple in construction and capable of measuring out powder accurately.

It is respectfully submitted that the rejection is improper because the applied art fails to teach each element of claim 1 as amended. Specifically, it is respectfully submitted that the applied art fails to teach a measuring drum having an outer cylinder with a plurality of recesses formed into an outer periphery of the outer cylinder with each recess sized to receive measured amounts of the magnetic powder, at least one doctor blade extending along an axis of the measuring drum and in contact with the outer periphery of the measuring drum and including magnets arranged inside the measuring drum for magnetically retaining the measured-out amounts of the magnetic powder in the respective recesses with a magnetic-screening plate disposed between the magnets and the outer cylinder for cutting off the magnetic retaining force of the magnets to transfer the measured-out amounts of the magnetic powder to the sealing drum.

Claims 2-4 depend from claim 1 and include all of the features of claim 1. It is respectfully submitted that the dependent claims are allowable at least for the reason claim 1 is allowable as well as for the features they recite.

Claim 5 is canceled and therefore the rejection as applied thereto is now moot.

Withdrawal of the rejection is respectfully requested.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as unpatentable over Saito in view of Japanese Patent 7-61414. The rejection is respectfully traversed.

Japan 414 teaches a machine for manufacturing a disposable body warmer and includes a measuring drum, a transition drum, a transfer drum and a sealed drum. Japan 414 appears to have recesses (referred to as crevices) in the measuring drum. Also, the powder material is attracted to permanent magnets that are apparently disposed inside the drum.

It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 1 as amended. Specifically, it is respectfully submitted that the applied art fails to teach a measuring drum having an outer cylinder with a plurality of recesses formed into an outer periphery of the outer cylinder with each recess sized to receive measured amounts of the magnetic powder, at least one doctor blade extending along an axis of the measuring drum and in contact with the outer periphery of the measuring drum and including magnets arranged inside the measuring drum for magnetically retaining the measured-out amounts of the magnetic powder in the respective recesses with a magnetic-screening plate disposed between the magnets and the outer cylinder for cutting off the magnetic retaining force of the magnets to transfer the measured-out amounts of the magnetic powder to the sealing drum. Thus, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed invention. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claims 2-4 depend from claim 1 and include all of the features of claim 1. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reason claim 1 is allowable as well as for the features they recite.

Withdrawal of the rejection is respectfully requested.

In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

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